Amendments to the Specification:

Beginning at page 1, line 1, please insert the following paragraph:

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a divisional application of U.S. Application Serial No. 09/652,652, filed on August 31, 2000, now allowed, which is a continuation of U.S. Application Serial No. 08/996,357, filed on December 22, 1997, now U.S. Patent No. 6,124,604, which claims the benefit of a foreign priority application filed in Japan, Serial No. 08-358956, filed December 30, 1996, all of which are incorporated by reference.

Please replace the paragraph beginning at page 1, line 16 as with the following amended paragraph:

The high-temperature polysilicon TFT is formed on a highly heat-resistant substrate such as a quartz substrate because in order to obtain a crystalline silicon film ~~to constitute~~ with an active layer ~~is obtained by~~ heating at 800°C to 900°C is required. On the other hand, the low-temperature polysilicon TFT formed on a substrate that is relatively low in heat resistance such as a glass substrate by a process of less than 600°C.

Please replace the paragraph beginning at page 1, line 23 as with the following amended paragraph:

~~The~~ A high-temperature polysilicon TFT has the ~~advantages~~ advantage that TFTs similar in characteristics can easily be integrated on a substrate, and that it can be manufactured by utilizing the various process conditions and manufacturing apparatuses of ~~the~~ conventional IC processes. On the other hand, ~~the~~ a low-temperature polysilicon TFT has ~~an~~ the advantage that a glass substrate ~~can~~ may be used ~~which~~ that is inexpensive and can easily be increased in size (large-area substrate).

Please replace the paragraph beginning at page 2, line 2 as with the following amended paragraph:

According to ~~the~~ current technologies, there are no large differences in characteristics between ~~the~~ a high temperature polysilicon TFT and the low-temperature polysilicon TFT. Both types of TFTs provide mobility values of about 50 to 100 cm^2/Vs and S-values of about 200 to 400 mV/dec (V_D = 1 V).

Please replace the paragraph beginning at page 2, line 8 as with the following amended paragraph:

Techniques of producing a liquid crystal display device ~~in which~~ where integrated circuits, an active matrix circuit, and peripheral circuits for driving ~~it~~ the active matrix circuit, are formed on the same substrate (~~what is called~~ also known as a peripheral circuits integration type liquid crystal display device) are now being studied.

Please replace the paragraph beginning at page 2, line 13 as with the following amended paragraph:

However, the characteristics of ~~the~~ conventional high-temperature polysilicon ~~TFT~~ and low-temperature polysilicon ~~TFT~~ TFTs are much poorer than those of ~~the~~ a MOS transistor ~~that using~~ formed on a single crystal silicon wafer. ~~In general, the~~ Typically, a MOS transistor ~~using~~ formed on a single crystal silicon wafer ~~provides~~ yields an S-value of 60 to 70 mV/dec.

Please replace the paragraph beginning at page 2, line 19 as with the following amended paragraph:

~~Further~~ Furthermore, in ~~each of the~~ both high-temperature polysilicon ~~TFT~~ and ~~the~~ low-temperature polysilicon ~~TFT~~ TFTs according to the current technologies, because of low mobility, the driving frequency of ~~the TFT itself~~ such TFTs is obliged to be less than several megahertz.

Please replace the paragraph beginning at page 2, line 24 as with the following amended paragraph:

For example, where peripheral circuits of a liquid crystal display device are formed by using high-temperature or low-temperature polysilicon TFTs, it is impossible to directly input~~, to drive the TFTs,~~ (to drive the TFTs) a clock signal or a video signal of more than tens of megahertz ~~that is~~ necessary for display.

Please replace the paragraph beginning at page 2, line 29 as with the following amended paragraph:

For the above reason, a plurality of wiring lines (interconnections) are used to transmit clock signals or video signals and the clock signals or video signals are supplied to the TFTs in such a manner as to be reduced in frequency (called divisional driving). For example, a 10-MHz frequency of an original clock signal is divided into 2.5 MHz by using four wiring lines. ~~and the~~ The respective TFTs are driven at this low frequency. This increases the number of wiring lines and the number of TFTs, resulting in problems such as ~~an~~ increased installation area.

Please replace the paragraph beginning at page 3, line 8 as with the following amended paragraph:

~~On the other hand, the~~ The present inventors have developed a TFT which exhibits performance ~~that is~~ equivalent to that of ~~the~~ a MOS transistor ~~using~~ formed on a single crystal silicon wafer through it uses a crystalline silicon film.

Please replace the paragraph beginning at page 3, line 12 as with the following amended paragraph:

~~This type of~~ Such a TFT uses a crystalline silicon film having a crystal structure that is continuous in a predetermined direction, for instance, in the source-drain direction as well as having grain boundaries extending in the same, predetermined direction.

Please replace the paragraph beginning at page 4, line 5 as with the following amended paragraph:

However, where integrated circuit formed using TFTs over such a large area as a several centimeter square to a tens of centimeter square as in the case of the peripheral circuits integration type active matrix liquid crystal display device, the rounding of high-frequency signals that are transmitted by wiring lines becomes a very serious problem when ~~the~~ such integrated circuit is driven at a high frequency such as tens to hundreds of megahertz or ~~a even~~ higher ~~frequency~~.

Please replace the paragraph beginning at page 5, line 6 as with the following amended paragraph:

The wiring lines 907 to 909 are formed as thin films of a conductive material such as aluminum, and at the same time as the TFTs of the peripheral circuits 903 and 904 and the active matrix circuit of the display section 905 ~~are formed~~.

Please replace the paragraph beginning at page 5, line 15 as with the following amended paragraph:

In general, the clock signal frequency amounts to about 12.5 MHz in the case of VGA (640 x 480 x 3 (three colors of RGB) pixels), and the video signal frequency increases with the clock signal frequency, ~~i.e., as~~ such as when the image resolution becomes higher.

Please replace the paragraph beginning at page 5, line 20 as with the following amended paragraph:

In particular, in the peripheral circuits integration type liquid crystal display device, the peripheral circuits 903 and 904 ~~for driving~~ which drive the display section 905 ~~of a~~ which might be several centimeter square to a tens of centimeter square are usually provided ~~along sidelines of the~~ alongside display section 905 and hence have ~~a length of several centimeters to tens of centimeters along the sidelines~~ similar length.

Please replace the paragraph beginning at page 5, line 26 as with the following amended paragraph:

Each of the peripheral circuits 903 and 904 has wiring lines that extend from one end to the other ~~of~~ within the circuit. The clock signal line and the video signal line are examples of such wiring lines. Such wiring lines ~~has~~ may have a length of several centimeters to tens of centimeters inside the peripheral circuits 903 and 904.

Please replace the paragraph beginning at page 6, line 2 as with the following amended paragraph:

The electric resistance of ~~each of such~~ long wiring lines becomes very high even if ~~it is~~ made of a material having high electric conductivity, such as aluminum.

Please replace the paragraph beginning at page 6, line 5 as with the following amended paragraph:

The peripheral wiring lines 907 for transmitting signals from ~~the~~ flat cable 906 to ~~the~~ peripheral circuits 903 and 904 ~~are~~ also ~~such that the~~ have line width ~~is~~ of tens to hundreds of micrometers and ~~the~~ length ~~is~~ several centimeters or more, even tens of centimeters in some cases.

Please replace the paragraph beginning at page 6, line 10 as with the following amended paragraph:

In view of the length of the peripheral wiring lines 907 and the length of the wiring lines 908 and 909 in the peripheral circuits 903 and 904, it is understood that signals are transmitted by ~~so long~~ wiring lines ~~as never occur in the~~ of length not available in such scale ~~of~~ in conventional IC chips.

Please replace the paragraph beginning at page 6, line 15 as with the following amended paragraph:

On the other hand, capacitance coupling is likely to occur in ~~the~~ parallel-arranged wiring lines when a high-frequency signal is applied thereto because they are distant from each other by ~~merely~~ only tens to hundreds of micrometers.

Please replace the paragraph beginning at page 6, line 19 as with the following amended paragraph:

Further, in the liquid crystal display device, the opposed electrode (not shown) is provided on the entire surface of the opposed substrate 902. From the viewpoints of protecting the peripheral circuits 903 and 904 and simplifying the manufacturing process, it is ~~a~~ common design to provide not only the display section 905 but also the peripheral circuits 903 and 904 and the peripheral wiring lines 907 on the surface that confronts the opposed substrate 902. Therefore, the opposed electrode confronts the peripheral wiring lines 907 and the wiring lines 908 and 909 in the peripheral circuits 903 and 904, and hence capacitance coupling may occur between the opposed electrode and the above wiring lines.

Please replace the paragraph beginning at page 7, line 1 as with the following amended paragraph:

The capacitances formed between wiring lines or between wiring lines and the opposed electrode (provided on the inside surface of the opposed substrate 902 that confronts the substrate 901 via the liquid crystal) and the high resistance of each wiring line cause deterioration, i.e., rounding, of a transmission signal waveform. That is, a signal that is transmitted by a wiring line, even ~~if~~ when it has a good shape (for instance, a rectangular shape) at the input stage, is more rounded (the rising position of the waveform is delayed or the waveform is disordered) as it reaches the end of the wiring line.

Please replace the paragraph beginning at page 7, line 12 as with the following amended paragraph:

~~If~~ When a signal waveform is rounded to a large extent, a delay may occur in the operation timing of a circuit or erroneous video information ~~is~~ transmitted to pixels, possibly resulting in erroneous operation or a disordered image.

Please replace the paragraph beginning at page 7, line 16 as with the following amended paragraph:

This problem becomes more serious as the size of the display section 905 increases or the driving frequency is increased such as by increasing the display resolution.

Please replace the paragraph beginning at page 7, line 19 as with the following amended paragraph:

Among the peripheral circuits 903 and 904, the rounding has a great influence ~~on~~, i.e., is a serious problem in the circuit 903 ~~for~~ when driving the data lines (source lines) because it is supplied with high-frequency signals of tens to hundreds of megahertz.

Please replace the paragraph beginning at page 7, line 24 as with the following amended paragraph:

At present, integrated circuits in the form of a chip that ~~uses~~ use a single crystal silicon wafer are also common ~~that~~ and operate at a driving frequency of tens to hundreds of megahertz. However, in such cases, since the entire integrated circuit is accommodated in a chip of an about l-to-2-cm square, wiring lines are short and hence the rounding is less serious than in the large-area liquid crystal display device.

Please replace the paragraph beginning at page 8, line 5 as with the following amended paragraph:

However, if the distance between wiring lines is increased, the area necessary to accommodate the wiring lines and a circuit that uses the wiring lines increases, resulting in an increase in the size of the entire device. Thinning the width of wiring lines is not favorable either however, because the electric resistance increases ~~though~~ as the distance between the wiring lines decreases.

Please replace the paragraph beginning at page 8, line 12 as with the following amended paragraph:

The distance between the wiring lines and the opposed electrode is relatively small (the interlayer insulating film is 1 to 2 μm thick and the liquid crystal layer is 3 to 8 μm thick, and hence the total thickness is about 10 μm). However, the thickness of the liquid crystal material layer, i.e., the cell gap, cannot be increased for ~~the~~ optical reasons. It is difficult to increase the distance between the wiring lines and the opposed electrode sufficiently to obtain a desired reduction in capacitance by increasing the thickness of the interlayer insulating layer.

Please replace the paragraph beginning at page 8, line 25 as with the following amended paragraph:

One ~~may think that~~ would think the electric resistance of wiring lines can be reduced by widening or thickening the wiring lines. However, thickening the wiring lines is unfavorable because it makes hillocks ~~to~~ occur more easily due to heating ~~in a manufacturing process and hence short-circuiting comes to occur~~ when manufacturing. As a result, short-circuiting occurs more easily between wiring lines that cross each other via the interlayer insulating film.

Please delete the paragraph beginning at page 9, line 1, which starts with "On the other hand,".

Please replace the paragraph beginning at page 11, line 10 as with the following amended paragraph:

While conventionally a wiring line is constituted of only one layer, i.e., the wiring line 111, in the structure of Figs. 1A to 1C the auxiliary wiring line 106 is provided in the same layer as the gate electrode 105. Further, a two-layer structure is established in such a manner that the wiring line 111 is electrically connected in parallel to the auxiliary wiring line 106 via the plurality of contact holes 108 ~~that are~~ formed in the interlayer insulating film 107 along the longitudinal direction of the wiring line 111. Naturally, another auxiliary wiring line may also be provided ~~so as to be~~ electrically connected in parallel to the wiring line 111 with another interlayer insulating film, for instance, a film 112, interposed in between.

Please replace the paragraph beginning at page 12, line 18 as with the following amended paragraph:

In Fig. 1B, reference numeral 113 denotes a wiring line that lies below and crosses the wiring line 111 (also see Fig. 1C). For example, in the case of the peripheral circuits integration type liquid crystal display device, this type of structure is employed for a clock signal line of a peripheral circuit and <u>for</u> those gate lines of TFTs of the peripheral circuit which are connected to the clock signal line.

Please replace the paragraph beginning at page 12, line 25 as with the following amended paragraph:

Where the wiring line 113 that crosses the wiring line 111 is disposed in the same layer as the auxiliary wiring line 106 for reducing the electric resistance, the auxiliary wiring line 106 may be divided by eliminating its portion corresponding to the wiring line 113 and its vicinities ~~and the~~. <u>The</u> wiring line 113 may be disposed between the divided parts (see Fig. 1C). With this structure, the electric resistance is sufficiently reduced and the formation of the auxiliary wiring line 106 does not alter the manufacturing process (the manufacturing process remains the same as the conventional one).

Please replace the paragraph beginning at page 19, line 12 as with the following amended paragraph:

In this state, the nickel element is unevenly distributed in the film 208. In particular, the nickel element exists at relatively high concentrations at the leading portions of the crystal growth indicated by numeral 207 and the portions where the openings 205 have ~~been~~ existed before the mask 204 is removed.

Please replace the paragraph beginning at page 22, line 16 as with the following amended paragraph:

According to the current technologies, the concentration, as measured by utilizing the SIMS (secondary ion mass spectroscopy), of nickel elements finally remaining in the above-formed crystalline silicon films as the active layers 210 to 212 is 1×10^{14} to 5×10^{17} atoms/cm^3. It is preferable that the concentration be as low as possible.

Please replace the paragraph beginning at page 29, line 26 as with the following amended paragraph:

In contrast, when a crystalline silicon film having the above-described unique crystal structure is used, necessary characteristics can be obtained with dimensions that ~~does~~ do not conform to the scaling rule.